

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2002-CE-51-AD; Amendment 39-13226; AD 2003-14-07]

RIN 2120-AA64

Airworthiness Directives; Pilatus Aircraft Ltd. Models PC-12 and PC-12/45 Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD) that applies to all Pilatus Aircraft Ltd. (Pilatus) Models PC-12 and PC-12/45 airplanes. This AD requires you to repetitively replace the nose landing gear (NLG) drag link right-hand part every 4,000 landings until an improved design NLG drag link right-hand part is installed. This AD also requires you to install an improved design NLG drag link right-hand part as terminating action for the repetitive replacements. This AD is the result of mandatory continuing airworthiness information (MCAI) issued by the airworthiness authority for Switzerland. The actions specified by this AD are intended to prevent structural failure of the nose landing gear (NLG) caused by fatigue damage to the NLG drag link right-hand part that develops over time. Such failure could result in either an unintended NLG extension during flight or the NLG not properly locking upon extension, which could lead to loss of airplane control during landing operations.

DATES: This AD becomes effective on September 5, 2003.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in the regulations as of September 5, 2003.

ADDRESSES: You may get the service information referenced in this AD from Pilatus Business Aircraft Ltd., Product Support Department, 11755 Airport Way, Broomfield, Colorado 80021; telephone: (303) 465-9099; facsimile: (303) 465-6040. You may view this information at the Federal Aviation Administration (FAA), Central Region, Office of the Regional Counsel, Attention: Rules Docket No. 2002-CE-51-AD, 901 Locust, Room 506, Kansas City, Missouri 64106; or at the Office of the Federal Register, 800 North Capitol Street, NW, suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT: Doug Rudolph, Aerospace Engineer, FAA, Small Airplane Directorate, 901 Locust, Room 301, Kansas City, Missouri 64106; telephone: (816) 329-4059; facsimile: (816) 329-4090.

SUPPLEMENTARY INFORMATION:

Discussion

What events have caused this AD? The Federal Office for Civil Aviation (FOCA), which is the airworthiness authority for Switzerland, recently notified FAA that an unsafe condition may exist on certain Pilatus Models PC-12 and PC-12/45 airplanes. The FOCA reports that 3 aircraft experienced a failure of the nose landing gear (NLG) drag link assembly during cruise flight. The actuator attachment levers on the right-hand upper drag link part failed. In all cases, the NLG fell out due to gravity, and the emergency spring pack extended it forward and allowed safe landings.

What is the potential impact if FAA took no action? Structural failure of the NLG drag link right-hand part could result in either an unintended NLG extension during flight or the NLG not properly locking upon extension. This could lead to loss of airplane control during landing operations.

Has FAA taken any action to this point? We issued a proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an AD that would apply to all Pilatus Models PC-12 and PC-12/45 airplanes. This proposal was published in the Federal Register as a supplemental notice of proposed rulemaking (NPRM) on April 23, 2003 (68 FR 19963). The supplemental NPRM proposed to require you to repetitively replace the nose landing gear (NLG) drag link right-hand part every 4,000 landings until an improved design NLG drag link right-hand part is installed. The NPRM also proposed to require you to install an improved design NLG drag link right-hand part as terminating action for the repetitive replacements.

Was the public invited to comment? The FAA encouraged interested persons to participate in the making of this amendment. The following presents the comments received on the proposal and FAA's response to each comment:

Comment Issue No. 1: Temporary Revision Incorporated in Aircraft Maintenance Manual

What is the commenter's concern? A commenter states that when the NPRM and the supplemental NPRM were issued that the reference to Temporary Revision No. 32-14, dated June 4, 2002, to Pilatus PC-12 Maintenance Manual 32-20-06, was correct. However, since issuance of the NPRMs, Pilatus has incorporated the temporary revision into the Pilatus PC-12 Maintenance Manual. The commenter recommends that FAA revise the reference to read the Pilatus PC-12 Maintenance Manual 32-20-06 instead of the temporary revision.

What is FAA's response to the concern? We concur with the commenter and for clarity and completeness will change the final rule AD action to incorporate this change.

Comment Issue No. 2: Use of Correct Service Bulletin

What is the commenter's concern? A commenter states that Pilatus has issued PC12 Service Bulletin No. 32-014, Revision No. 1, dated May 13, 2003, which includes minor changes. However, the commenter points out that compliance following either the original service bulletin or the revised service bulletin should be acceptable. Further, operators who do the work following the revised service bulletin should not need to request an alternative method of compliance (AMOC). The commenter recommends the final AD action include references to the original service bulletin and the revised service bulletin.

What is FAA's response to the concern? The FAA agrees and we are changing the final rule AD to provide for owners/operators who accomplish the work under either the original service bulletin or Revision 1 of the service bulletin.

FAA's Determination

What is FAA's final determination on this issue? We carefully reviewed all available information related to the subject presented above and determined that air safety and the public interest require the adoption of the rule as proposed except for the changes discussed above and minor editorial corrections. We have determined that these changes and minor corrections:

- Provide the intent that was proposed in the NPRM for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

How does the revision to 14 CFR part 39 affect this AD? On July 10, 2002, FAA published a new version of 14 CFR part 39 (67 FR 47997, July 22, 2002), which governs FAA's AD system. This regulation now includes material that relates to special flight permits, alternative methods of compliance, and altered products. This material previously was included in each individual AD. Since this material is included in 14 CFR part 39, we will not include it in future AD actions.

Cost Impact

How many airplanes does this AD impact? We estimate that this AD affects 265 airplanes in the U.S. registry.

What is the cost impact of this AD on owners/operators of the affected airplanes? We estimate the following costs to accomplish the replacement with the same design part:

Labor cost	Parts cost	Total cost per airplane	Total cost on U.S. operators
6 workhours x \$60 per hour = \$360	\$1,000	\$1,360	\$1,360 x 265 = \$360,400.

We estimate the following costs to accomplish the replacement with the improved design part:

Labor cost	Parts cost	Total cost per airplane	Total cost on U.S. operators
6 workhours x \$60 per hour = \$360	\$2,200	\$2,560	\$2,560 x 265 = \$678,400.

Compliance Time of This AD

What is the compliance time of this AD? The compliance time of this AD is based on the number of landings rather than hours TIS.

Why is the compliance time of this AD presented in landings? The reason for this type of compliance is that the area that is showing fatigue is the NLG drag link right-hand part. This area of the airplane is used during the landing operation. We have determined to base the compliance time for this AD upon the number of landings.

Since airplane operators are not required to keep track of landings, we will provide a method of calculating hours TIS into landings.

Regulatory Impact

Does this AD impact various entities? The regulations adopted herein will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, it is determined that this final rule does not have federalism implications under Executive Order 13132.

Does this AD involve a significant rule or regulatory action? For the reasons discussed above, I certify that this action (1) is not a "significant regulatory action" under Executive Order 12866; (2) is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. A copy of the final evaluation prepared for this action is contained in the Rules Docket. A copy of it may be obtained by contacting the Rules Docket at the location provided under the caption ADDRESSES.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. FAA amends § 39.13 by adding a new AD to read as follows:

AIRWORTHINESS DIRECTIVE

Aircraft Certification Service
Washington, DC



U.S. Department
of Transportation
**Federal Aviation
Administration**

We post ADs on the internet at "www.faa.gov"

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

2003-14-07 Pilatus Aircraft Ltd.: Amendment 39-13226; Docket No. 2002-CE-51-AD.

(a) *What airplanes are affected by this AD?* This AD affects Models PC-12 and PC-12/45 airplanes, all serial numbers, that are certificated in any category.

(b) *Who must comply with this AD?* Anyone who wishes to operate any of the airplanes identified in paragraph (a) of this AD must comply with this AD.

(c) *What problem does this AD address?* The actions specified by this AD are intended to prevent structural failure of the nose landing gear (NLG) caused by fatigue damage to the NLG drag link right-hand part that develops over time. Such failure could result in either an unintended NLG extension during flight or the NLG not properly locking upon extension, which could lead to loss of airplane control during landing operations.

(d) *What actions must I accomplish to address this problem?* To address this problem, you must accomplish the following:

Actions	Compliance	Procedures
(1) Replace the nose landing gear (NLG) drag link righthand part, part number (P/N) 532.20.12.140 with: (i) The same P/N 532.20.12.140 or FAA-approved equivalent part number; or. (ii) Improved design NLG drag link right-hand part, P/N 532.20.12.289.	Upon the accumulation of 4,000 landings on the nose landing gear (NLG) drag link right hand part or within the next 100 landings after September 5, 2003 (the effective date of this AD), whichever occurs later. Incorporation of the improved-design NLG drag link brace is terminating action for this AD.	In accordance with the Pilatus PC-12 the Maintenance Manual 32-20-06, pages 401 through 405, dated October 1, 2002.
(2) If replacement in paragraph (d)(1) is with the original style part, replace with: (i) The same P/N 532.20.12.140 or FAA-approved equivalent part number; or. (ii) Improved design NLG drag link right-hand part, P/N 532.20.12.289.	Upon the accumulation of 4,000 landings. Incorporation of improved-design NLG drag link brace is terminating action for this AD.	In accordance with the Pilatus PC-12 Maintenance Manual 32-20-06, pages 401 through 405, dated October 1, 2002.

(3) Unless already accomplished per paragraph (d)(1) or (d)(2), replace the NLG drag link right-hand part, P/N 532.20.12.140, with an improved design NLG drag link right-hand part, P/N 532.20.12.289 or FAA-approved equivalent part number. Installing the improved part number terminates the repetitive replacement requirements of paragraph (d)(2) of this AD.	At the third replacement required in paragraph (d)(2) of this AD.	In accordance with either Pilatus Aircraft Ltd. PC12 Service Bulletin No. 32-014, dated August 13, 2002, or Pilatus Aircraft Ltd. PC12 Service Bulletin No. 32-014, Revision No. 1, dated May 13, 2003, and the Pilatus PC-12 Maintenance Manual.
(4) Do not install, on any affected airplane, an NLG drag link right-hand part that is not P/N 532.20.12.289 or FAA-approved equivalent part number.	When an improved P/N 532.20.12.289 NLG drag link part is installed after the effective date of this AD.	Not Applicable.

(e) *What if I do not keep track of landings?* The compliance times of this AD are presented in landings instead of hours time-in-service (TIS). If landings are not known, hours TIS may be used by dividing the numbers of hours TIS by the unknown landings factor (0.75).

Note 1: For the purposes of this AD, 3,000 hours TIS would be equivalent to 4,000 landings (3,000 hours/0.75 = 4,000 landings).

(f) *Can I comply with this AD in any other way?* To use an alternative method of compliance or adjust the compliance time, use the procedures in 14 CFR 39.19. Send these requests to the Standards Office Manager, Small Airplane Directorate. Contact Doug Rudolph, Aerospace Engineer, FAA, Small Airplane Directorate, 901 Locust, Room 301, Kansas City, Missouri 64106; telephone: (816) 329-4059; facsimile: (816) 329-4090 for information on any already approved alternative methods of compliance.

(g) *Are any service bulletins incorporated into this AD by reference?* Actions required by this AD must be done in accordance with either Pilatus Aircraft Ltd. PC12 Service Bulletin No. 32-014, dated August 13, 2002, or Pilatus Aircraft Ltd. PC12 Service Bulletin No. 32-014, Revision No. 1, dated May 13, 2003; and Pilatus PC-12 Maintenance Manual 32-20-06, pages 401 through 405, dated October 1, 2002. The Director of the Federal Register approved this incorporation by reference under 5 U.S.C. 552(a) and 1 CFR part 51. You may get copies from Pilatus Aircraft Ltd., Customer Liaison Manager, CH-6371 Stans, Switzerland; telephone: +41 41 619 63 19; facsimile: +41 41 619 6224; or from Pilatus Business Aircraft Ltd., Product Support Department, 11755 Airport Way, Broomfield, Colorado 80021; telephone: (303) 465-9099; facsimile: (303) 465-6040. You may view copies at the FAA, Central Region, Office of the Regional Counsel, 901 Locust, Room 506, Kansas City, Missouri, or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

Note 2: The subject of this AD is addressed in Swiss AD Number HB 2002-271, dated June 17, 2002.

(h) *When does this amendment become effective?* This amendment becomes effective on September 5, 2003.

Issued in Kansas City, Missouri, on July 7, 2003.
Michael Gallagher,
Manager, Small Airplane Directorate, Aircraft Certification Service.
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